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—THE— CANADIAN ARCHITECT AND BUILDER,

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DECORATORS, BUILDERS, CONTRACTORS, AND MANU-
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EDITOR'S ANNOUNCEMENTS.

Contributions of technical value to the persons in whose interests this journal is published, are cordially invited. Subscribers are also requested to forward newspaper clippings or written items of interest from their respective localities.

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THE Parks and Gardens Committee of the Toronto City Council has succeeded in a period of five or six years in transforming the eastern half of Toronto Island into a delightful park. The sweepings from the city streets, and soil from excavations for new buildings, etc., have been carried to the island on scows and there used to fill up the lagoons. On the land thus "made," young trees have been abundantly planted, and have already attained sufficient growth to afford a certain amount of shade, in addition to what may be obtained beneath the trees of larger growth on the older part of this section of the Island. This Island Park will go far to make good the loss which the citizens have sustained through the short-sightedness of the past, which has left them almost entirely without central parks and squares in the city proper. Island Park is so near at hand, so easily accessible, and so delightfully situated, that its value to the citizens of this and future generations would indeed be difficult to estimate. We presume it is the intention of the Park Commissioner to transplant some of the trees, as at present they stand much too close together. It may also be remarked that full advantage will not be taken of the park until the ferries are compelled to lower their rates.

ARCHITECTS in England have many advantages which their confreres on this side of the water have not. Their annual excursions to historic localities are always full of interest, but this year the Society of Architects has carried out the more ambitious project of an excursion to Belgium. Some forty-one members availed themselves of the trip, and the first excitement consisted in being presented to the King at his palace at Ostend. This was on a Saturday. Sunday and Monday were spent in Bruges—being brim-full of interest. Tuesday was spent in Ghent, Wednesday in Antwerp, Thursday in Malines, or, as it is sometimes called, Mechlin, and thence to Brussels—Friday and Saturday in Brussels, with a hurried run to Louvain. On the Monday, a portion of the party being unable to remain longer, left for home, while the remainder proceeded to Mons. Tuesday was spent in Tournai, Wednesday at Andenarde, Courtrai, on Thursday, and the last day, Friday, at Yoes, leaving in the afternoon for Ostend and thence to England on Saturday. Many of the party spent considerable time in sketching, the results being seen in the architectural journals. The effect of such a trip and in such congenial company, must have been truly inspiring, and cannot but result in great good to those participating.

WE publish elsewhere the proceedings of the first annual meeting of the Province of Quebec Association of Architects. Some 34 out of a membership of about 70 attended, being a very much larger percentage than that recorded of many similar organizations. As will be seen, the whole of the officers were re-elected, with the exception of Mr. Hopkins, who positively declined, when the 1st vice-president, Mr. Berlinquet, was elected to the position. The annual report indicates a most commendable activity on the part of the Council, 21 meetings having been held, with the result that incorporation has been secured, examinations instituted and a scheme for the regulation of competitions formulated. The Association has thus evinced an *esprit du corps* and a vitality worthy of emulation, and if its progress continues at the same ratio, the resultant advance of the profession will be most marked. The reading of professional papers and discussions thereon, which proved of so much interest at the Ontario gatherings, were conspicuous by their absence. We presume, however, that when the Association gathers a little more strength, and now that the weightier matters have been put into shape, the members will have time to prepare papers for future meetings. The remarks of Mr. Berlinquet at the banquet in the evening, in proposing the toast of the Quebec Association, and of the other gentlemen who spoke, should be pondered over by the members of both Associations. The toast of the sister Association in Ontario was happily introduced by Mr. Roy, who gave it due praise as the pioneer organization. Mr. Doran, in responding, expressed the hope that the time was not far distant when a Dominion Association should be formed, with the provincial Associations in affiliation.

IN view of recent decisions of the English Courts, the Council of the Royal Institute of British Architects have formally declared that in cases of partnership between architects, it is neither proper nor professional for one partner to claim, except with the expressed concurrence of the other, the entire credit of a design executed by the firm.

THE year 1892 will probably witness unusual activity on the streets of Toronto. The street railway has been disposed of to a syndicate which is bound by the terms of its lease to substitute electric traction for horses within one year on certain of the leading thoroughfares. This will necessitate the reconstruction of the present tracks. This reconstruction, fortunately for the citizens, comes at a time when new and permanent pavements are an absolute necessity on these thoroughfares, consequently both improvements will be carried out at the one time. It is the intention of the Board of Works to have everything in readiness to proceed with the laying of permanent pavements on King, Queen and Yonge streets in the spring of '92. The material to be used will in all probability be asphalt. Several leading streets have been asphalted during the last three or four years, and with such satisfactory results, that this class of pavement is rapidly growing in favor.

In its architecture, as in many other respects, the city of Montreal exhibits greater conservatism than Toronto. In the line of domestic architecture especially, the architects of Montreal and Quebec appear to be either unwilling or afraid to deviate from the old paths. As a result, the residence streets of the city are less interesting to the student in quest of new ideas than they otherwise might be. Without attempting to defend modern architectural styles in all their phases, it must be admitted that in many respects they are more pleasing and interesting than the old. The almost universal use of grey stone in the more expensive residences also serves to impart sameness to the residential districts of Montreal. The observer is strongly impressed by the air of solidity which everywhere confronts him, but after a time tires of this, and would fain rest his eyes now and again upon buildings more varied in outline and coloring. While the freest use appears to be made of modern materials for interiors, those for exterior use are only to a limited extent taken advantage of. No doubt the conservative tastes of their clients have deterred the architects of the Province of Quebec from departing more widely than they have done from old traditions, but there is reason to believe that in future the exteriors as well as interiors of their buildings will be more expressive of modern architectural progress.

To avoid clashing between the operations of the Roads and Water Departments of the city of Montreal, which in the past has sometimes led to annoyance and expensive bungling, the proposal was recently made to place both departments under one management. The proposal led to a compromise arrangement for the present, which is, that the heads of these departments shall in future confer with one another prior to entering upon any work where conflicting interests might arise. Toronto and other cities have also experienced difficulty along the line mentioned, leading, as in the case of Montreal, to consideration of the advisability of vesting the entire control of the streets in the City Engineer. The success of this plan would largely depend upon the executive ability of the person into whose hands would be committed so great responsibility. When it is remembered how important and varied are the interests committed to the charge of the general manager of a great railway corporation, the successful working out of the principle cannot be questioned, provided, as has already been stated, the right man is found to fulfil the duties of the position. Such men are, of course, scarce, and command large salaries. The plan is to be tried in Montreal, is one which should prove satisfactory, if the heads of the departments concerned will undertake to carry it out in the proper spirit. On this will depend its success or failure. It is unfortunately true in some cities that a feeling of petty jealousy prevails regarding the authority which the head of each department considers is his exclusive right to exercise. Where there is this feeling, the Montreal plan would prove a failure. Under such circumstances, the system by which authority is centralized instead of being divided, appears to be the one most likely to promote harmonious, effective and economical administration.

THERE will shortly be a chance in Toronto to show what can be done by electricity on a city street railroad. Up to the present time electric roads in Canada have been confined to one or two short lengths of suburban railway. In fact, taking the continent all over, with the exception of Boston, electric roads, though many in number, have been principally operated in the smaller cities. Large centres of population, however, are rapidly coming into line. Cleveland and Buffalo being the latest additions to the list. There is no question but that the electric car is the ideal of urban transit. Its cleanliness—the number of horses used on the streets being reduced by thousands—the decrease in wear and tear of the road, its rapidity of motion and docility (if such a word may be permitted), added to the ease with which it may be handled, stopped, started and reversed in

a crowded thoroughfare—are but a few of its many advantages. The conversion of the present street railroads of Toronto, which must be done in the near future, to an electric system, will involve the construction of immense steam and electric works in the city. In the first place, steam power to the extent of between three and four thousand horse power will be needed. This will require buildings, engines, boilers, pumps, immense smoke stacks and foundations. Then there will be the electric generators, which will no doubt conform to the most recent practice of large power machines driven by interchangeable mechanism to allow of each being stopped and started independently of the others. The overhead construction will require a large amount of copper and line material, and the roadbeds will require relaying with the most approved form of rails. The cars and electric motors will not be the least part of the undertaking, and if built and equipped in the city will be equivalent to the introduction of a new industry amongst us.

As promised last month we publish on another page the examination papers of the Quebec and Ontario Associations of Architects. In the matriculation or preliminary examinations, the Quebec Association appears not to recognize the fact that many students will have already gone through the work prescribed and that a certificate of status should be sufficient in such cases. However, the student ought to be so well up in his work that it should be a pleasure rather than a hardship to be again submitted to it. No boy who cannot easily take this examination should be looked upon as fit to commence his pupilage in a profession requiring so much study and versatility of knowledge. It will be interesting as time passes to compare the working of the two schemes—the Quebec Association with its matriculation and final examinations and the Ontario Association with two intermediate examinations during pupilage. The latter scheme is the most elaborate of course, and will involve more trouble and expense to the students and the Association, but it is a question if it will not in the long run be more satisfactory to all concerned. The student will be constantly reminded of the necessity of continuous steady work in contrast to the spasmodic, with the consequent tendency to "cram" towards the end. He will also get through with and pass beyond portions of his course which would only hamper him if left to the time of the final test. We are pleased to note in the Quebec paper, in the note of advice to students, that the knowledge necessary to pass as a registered architect should be considered the *minimum*, and as simply the foundation for further study. The Quebec Association has already held its first matriculation examination, passing the two candidates who were presented, and setting an example of activity and push to the older organization in Ontario. But the latter Association, though perhaps a little slower in maturing a scheme, has evolved one which on the face of it appears to be capable of producing better results in the future.

INCANDESCENT electric lighting, first introduced in Toronto eighteen months ago, has made rapid advancement, and appears destined in a much shorter period than most people anticipated, to replace to a considerable extent, gas as an illuminant. Not alone is it largely in use in stores and large buildings devoted to business purposes, but is being adopted also for domestic lighting in many private residences of the better class. We were somewhat surprised to observe, as no doubt were many persons who were unaware of the growth of the demand for electric light for this purpose, that underground distribution mains are being laid on exclusively residence streets. Enquiry has revealed the fact that in two or three residential districts incandescent lighting has been in operation for some time, and others are impatiently awaiting its advent. The Toronto Incandescent Light Co., which is doing all the underground work in this line, states that it has now in operation a total of 12,000 lights, and that 90 per cent. of the better class of residences in course of erection are being wired for electric light. The present cost is one cent per hour for each 16 candle power lamp. It is claimed that under careful management this is little, if any, above the cost of gas. The readiness with which the light may be turned on or off without the aid of matches, by simply pressing a switch button, should result in reducing very much the waste resulting in almost every residence where gas is used from lights being unnecessarily left burning. Whether or not the cost of the incandescent light can be made to approximate closely to that of gas, is to some extent an open question. Aside from this, there can be no doubt that it possesses many important advantages over its older rival. It produces much less heat, is cleaner, and does not vitiate the atmosphere. Decorative effects of a highly satisfactory character may by its means be attained. It is already being used to some extent for heating purposes, and will not unlikely prove to be the agency through which in the future the present laborious and costly methods of warming buildings will be superseded.

THE accident to the building in Park Place, New York, which occurred about noon on the 20th of last month, is one which might occur to dozens of the same class of buildings in any large city. It is reported to have been of reasonably strong construction, designed and built by architects and builders of good standing. The joists were 3 x 14 on 12 and 14 inch beams

resting on columns of 9" diameter in the first storey and diminished one inch on each floor till they were 5" diameter in the fifth storey. The theory that an explosion was the prime cause of the disaster is not held by many to be tenable, as any concussion which was felt at the time was quite incapable of throwing about one hundred feet of wall into the street. It is believed that the accident was caused by overloading and excessive vibration. There is a constant tendency in commercial buildings to increase the weights upon the floors, often unconsciously, and where manufacturing is carried on, new machines are being constantly added as business increases. Sometimes the operation of these machines, when they happen to run in unison, sets up a vibration which becomes cumulative, like the march in step of soldiers over a bridge. The commander wisely orders his men to break step, and it would be the part of wisdom if factory owners would carefully note the tendency towards undue vibration and correct it by altering the setting of the machinery in order to break up the rhythmical motion which may become an irresistible force ending with disastrous results. It is reported that these buildings were erected some twenty years since, and that the upper floors were designed for offices or light business purposes. The load provided for—200 pounds per square foot—was sufficient for such use. But as is so often the case, the character of the tenancy changed as time passed on and the upper floors were occupied by printing and lithographing establishments, increasing the load on the floors to 700 pounds per square foot, and this with years of vibration, so weakened the floors that it needed only the fall of some heavy material to precipitate the catastrophe.

The press reports spoke of dividing walls on the lower or shop floors, and the inference is that above this the whole space was without dividing walls, which would act as ties or buttresses to the long front wall. This wall may have gradually, by reason of constant vibration, been forced away from the wooden girders, and the mutual tie and support being lost, the dropping girders would wedge the wall out into the street. We have frequently thought of this contingency, especially with regard to premises which have been enlarged by taking in adjoining buildings, cutting out the party walls and carrying the whole front walls on slender pillars. In the event of a sudden shock, nothing short of a special providence would prevent a disastrous collapse. It appears to us that a "special providence" in the shape of a proper by-law should be introduced in our cities and towns providing against this contingency. The walls should be constructed in such a manner as to be self-supporting. This could be accomplished in the case of a long frontage devoid of party walls, by internal buttresses at intervals not exceeding 20 or 22 feet. The risk run by firemen when buildings of this class are on fire is also very great, as whatever frail supports which heretofore kept the wall in place may burst or twist away, and a puff of wind or falling timber would be all that would be necessary to send the front with a crash into the street.

CORRECTION.

MONTREAL, Aug. 19th, 1891.

Editor CANADIAN ARCHITECT AND BUILDER.

DEAR SIR,—Allow me to correct an error which appeared in the last number of the CANADIAN ARCHITECT AND BUILDER. In referring to the Province of Quebec Association of Architects, you stated that S. A. Findlay and W. B. Hutchison passed the matriculation examination successfully. It should have read "Geo. N. Hutchison," as W. B. Hutchison is a student who goes up only for his final examination.

Hoping that you will correct the error in your next number,

I am, yours respectfully,

A P. Q. A. A. STUDENT.

MONTREAL.

(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

I AM pleased to notice that the Province of Quebec Association of Architects have framed conditions to govern architectural competitions in future. These conditions were read at the Quebec convention on the 10th inst., and unanimously approved. They will be submitted to the Governor-in-Council, and if sanctioned, copies will be sent to all the members of the Association.

The Council of the Province of Quebec Association of Architects should, in my judgment, take some action which will stop the practice indulged in to a considerable extent by students in the offices of members of the Association, of soliciting work on their own account, and offering to carry it out for less than half the proper commission.

A vast sum was sunk in the temporary plant used in building the Forth bridge. The engineers estimated that £500,000 was spent in this direction alone. In scaffolding, flooring, shedding, etc., 1,000,000 cubic feet of timber were used. From first to last, 1,200 tons of mere service bolts were needed to hold the material together. Scores of hydraulic jacks, sixty miles of wire rope, and rams innumerable were also among the temporary appliances employed.—*Engineer.*

Liquid slating for coating blackboards can be purchased ready for use, but where it is not easily to be had the following formula for preparing it may be relied upon, as it is that which is followed by one of the manufacturers of liquid slating: Dissolve one pound of shellac in one gallon spirits wine, ninety-five per cent.; when dissolved, add one-half pound best ivory black, five ounces best flour emery, and one-half pound ultramarine blue. Mix and put in stoppered bottle. Shake well before using. Being very volatile, it will be best to pour out into a cup only enough for immediate use. Use a soft, broad brush, and apply rapidly and evenly. One coat is usually sufficient on old blackboards.—*Ex.*

THE FOURTH GRECIAN ORDER.

Editor CANADIAN ARCHITECT AND BUILDER.



SIR,—Through the medium of your paper I beg to call the attention of my fellow students to the remarkable discovery made by the Council of the Ontario Association of Architects.

Which member's fertile imagination was first to give it birth, probably they will inform us! Mayhap it dawned upon each one simultaneously.

Picture it, my fellow students! This august assembly of examiners in that upper room of the Merchants' Bank—like the disciples of old on the day of Pentecost, waiting for an inspiration—when suddenly the building is subjected to severe strains by reason of the gyrations of these pioneers embracing each other affectionately and crying frantically: "Eureka! Eureka! We've found it! We've found it! THE FOURTH GRECIAN ORDER!"

After this excitement had somewhat abated, and all had resumed their seats, the secretary uprises and in a choking voice, with tears of thankfulness streaming down his face, supporting himself with a "T" square which he used in the form of a crutch, the thumb of his left hand stuck in the arm-hole of his vest, he thus delivered himself: "I looked far back into other years, and lo! in bright array I saw, as in a dream, the forms of ages pass away. I wandered through a land with clime salubrious, and in my journey passed a temple on the summit of a hill—a most perfect sample of the Grecian Ionic; a little to the left and partly hidden by a grove of trees the ruins of a temple of the Grecian Doric Order. Still I journeyed on, and entering a city saw the people flocking to the temple where worship was being held, and going forward with the throng, was soon standing in the midst of this palatial pile; and leisurely I examined it." (I will not weary the reader with the graphic description the Secretary gave of this building, lest it B-unikesome, suffice to say he classed it under the Grecian Corinthian Order.) He resumed—"Again my restless spirit asserted itself, and on and on I wandered, up hill and down dale, till far away in the distance I espied a glorious park, and on entering saw a vast multitude of people assembled listening to the fierce denunciations against good Catholics by an individual standing on a raised dais, and from the people I learned that this defender of the Faith was called "Jumbo." (At this juncture the basin on the table in which the listening board wrung their tear-stained handkerchiefs was full and overflowing; it was Curry-ed away and emptied.) Growing weary of the rabble I turned and wandered southward, and 'twas here in this park I discovered the long lost Order—a building which was then not completed. I stood before it enraptured. Words fail me when I attempt to describe the grandeur of its form—its noble and majestic proportions, its studied massing, its delicacy of outline, its refinement of detail, its perfect symmetry. I was so lost in admiration that I did not notice the approach of a person who was now standing beside me, and turning round I recognized the author of this gigantic fizzle, Neo Grec in the flesh. Gentlemen, I shall never forget the brief half hour I spent in the company of this enlightened genius. He gave me the entire history of the building, from its conception up to its present stage. He told me he was a stranger here and an alien from his own country—how they had never recognized his genius there, but here he had been received with outstretched arms, the Lord High Fraser having Waite-d for years for the right person, now felt influenced by the gods to confer upon him the honor of being the progenitor of this abortion (for it was a crime punishable with death according to the laws of the land if such a production had originated with any of their own subjects). At this point of my dream the form of Neo Grec faded away, and I remembered no more till I regained consciousness and found myself in the arms of our worthy President.

As the Secretary resumed his seat the members of the board again took to their feet and pirouetted. Such shouting, leaping and weeping for joy never greeted the ears of a human being at the conclusion of his maiden speech. (Indeed the noise was so loud that it could be heard at the Town's-end).

Methinks, my dear fellow students, that the true version of the discovery is this: They assembled in that upper room to study Graphic Statics, and fell asleep over the first two problems and dreamed this hideous dream of being left in the Queen's Park within view of our new Parliament Buildings, and thus emanated from their weary brains, "The Fourth Grecian Order," which they have given us as a question to elucidate at our April examinations.

Yours truly, FIRST YEAR STUDENT.

NOTE.—See Fergusson's History of Architecture, Vol. 1, p. 277; Nicholson's Encyclopædia, Vol. 1, p. 475; Rosengarten's Architectural Styles, p. 64.

OUR ILLUSTRATIONS.

ST. PAUL'S EPISCOPAL CHURCH, GUILD ROOM AND RECTORY, MUSKEGON, MICH.—POST & HOLMES, ARCHITECTS, TORONTO.

The drawings which we illustrate were placed first in a limited competition, the following firms being invited to submit sketches: Post & Holmes, Toronto; Patton & Fisher, Chicago; J. K. Cody, Chicago, and F. S. Allan, Joliette. The buildings are to be built of brown stone, laid in random ashlar work, the upper storey of rectory being in half timbered work. The roofs of church and guild room will be "open timbered." The church will accommodate 600, and the guild room 300. The estimated cost, exclusive of heating and furniture, &c., is \$40,000.

HOUSES ON CRAWFORD STREET, TORONTO.—DENISON & KING, ARCHITECTS.

RESIDENCE OF MR. W. E. PRICE, DORCHESTER ST., MONTREAL.—A. F. DUNLOP, ARCHITECT.

RESIDENCE FOR MR. THOMAS OLIVER, HAMILTON, ONT.—W. A. EDWARDS, ARCHITECT.

PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS.

THE first annual meeting of the above Association took place in the city of Quebec, on Thursday, the 10th inst. There were present: J. W. Hopkins, of Montreal, President, in the chair; F. X. Berlinquet, Quebec, 1st Vice-President; V. Roy, Montreal, 2nd Vice-President; A. C. Hutchison, A. F. Dunlop, A. Raza, A. T. Taylor, M. Perrault, Montreal; J. F. Peachy, Quebec, Councillors; W. E. Doran, Montreal, Treasurer; C. Clift, Montreal, Secretary; H. Staveley, A. H. Larochelle, D. Ouelette, L. C. E. Page, I. G. Bussieres, I. B. Bertrand, Thos. Raymond, G. E. Tanguay, A. J. Pageau, Chas. Baillarge, E. Dussault (student associate), R. Le May (student associate), Quebec; R. Findlay, W. H. Hodson, J. Z. Resther, Jos. Haynes, G. De G. Languedoc, L. Z. Gauthier, J. Esinhart, A. H. Lapierre, Theo. Daoust, Jas. Wright, A. Gendron, Montreal.

The minutes of the annual meeting before incorporation and last general meeting were read and confirmed.

The following report from the Council was read:—

ANNUAL REPORT OF THE COUNCIL.

GENTLEMEN,—At our annual meeting of October 10th, 1890, your Council was instructed to procure an Act of Incorporation, also to deal with matters in relation to competitions. On the 30th of December last we succeeded in procuring an Act of Incorporation, a copy of which has been sent to every member of the Association. The Act stipulated that the Council meet within one month and re-organize, forming necessary by-laws, to be ratified at the next annual meeting.

On the 15th and 16th of January your Council met, organized, under the Act, and elected the officers that were elected at the last general meeting. They framed the by-laws and adopted them as sent to each member, and which are now open for amendment and ratification at this meeting.

Since the organization under the Act in regard to matters of competitions, your Council after interviewing the Building Committee of Montreal Board of Trade, succeeded in having a few minor amendments made to the conditions prepared by the Building Committee; nevertheless, as the Building Committee did not accede to the more important items your Council found objectionable, they deemed it desirable to ask the members to refrain from engaging in the competition, and with that view prepared a petition which was signed by about 20 members, a copy of which was sent the Building Committee of Board of Trade. Your Council have prepared a guide for competitions which will be submitted later on at this meeting.

The Act sets forth that a tariff had to be prepared by the Council and sent down to the Lieutenant-Governor. The tariff as prepared will be read to you later. It has been sent to the Lieutenant-Governor, and now awaits his sanction.

The Board of Examiners elected at the meeting of January last consists of Messrs. Berlinquet and Baillarge, of Quebec, and Roy, Thomas and Taylor, of Montreal. They have framed programme of subjects for examinations, which have been printed. Examinations were held by the Board of Examiners last 30th and 31st of July. Two students went up for matriculation and one for the final examinations. Those for matriculation succeeded in passing; the one for registration was not equally successful. The officiating members of the Board were Messrs. Thomas, Roy and Taylor.

The Council has held 21 meetings. The attendance has been as follows:—J. W. Hopkins, 18; V. Roy, 17; A. Hutchison, 17; A. F. Dunlop, 19; M. Perrault, 4; A. Raza, 14; A. F. Taylor, 18; W. E. Doran, 13; C. Clift, 20. Quebec members—F. X. Berlinquet, 1; J. F. Peachy, 2.

The Council have engaged rooms for the use of the members of the Association, one large room about 35' x 160', and a room for the Council adjoining. There is a large fire-proof vault and store room and all the necessary conveniences. The rooms are situated on the second floor at 186 St. James St., Montreal, and have been furnished with tables, chairs, etc. The lease is for three years from May next, but we have the option of leaving next May, provided the Council give the required three months notice. The rental is \$200; the proprietor paying for cleaning, water, and all ordinary taxes. The rooms were formally opened on August 4th last. The Council have not yet succeeded in furnishing a library, but hope this will soon be accomplished, as also the delivering of lectures and the forming of classes for the students.

There are seventy members on the roll and 41 students. There has been paid into the Association by its members and students the sum of \$2,280; and there is still the sum of \$400 owing by the members and students. Your Council last January when they organized, found it necessary to raise the registration fee to enable them to meet the obligations incurred in procuring the Act, and yet later at the general meeting of the Association last May, it was again found necessary to assess each member the sum of \$5.00 additional, thus making the registration fee \$25.00. We are thankful to say that the members acceded to the request with alacrity, whereby your Council were enabled to meet all obligations, leaving a good balance in the Treasurer's hands. The Council take this opportunity of thanking the members for the handsome manner in which they have responded to all calls made upon them. All respectfully submitted on behalf of the Council.

J. W. HOPKINS, President.
CHRIS. CLIFT, Secretary.

TREASURER'S REPORT.

<i>Receipts.</i>	
Monies received by members fees, etc.,	\$2,287.83
<i>Expenditure.</i>	
Paid out for Act of Incorporation, printing, furnishing of rooms, expenses of delegations to Quebec, rental, etc.,	\$1,814.49
By balance in bank	473.34
	\$2,287.83

Auditors { J. NELSON, (Sgd.) W. E. DORAN, Treasurer.
CHAS. BAILLARGE.

It was moved by Mr. Staveley, and seconded by Mr. J. Z. Resther, that the report of the Council with the audited Treasurer's report be received and adopted, and that they be printed and a copy sent to each member. Carried.

The Secretary was instructed to notify each member in arrears according to the Act and by-laws.

The by-laws were then read, and after being slightly amended, it was moved by Mr. Clift and seconded by Mr. Raza, that as now amended they be finally adopted, translated by the committee already appointed, then printed in proper form with the Act and a list of the members and students belonging to the Association, a copy sent to each member and student associate.

The Secretary then read the suggestions for the conduct of architectural competitions as adopted by the Council, which were unanimously adopted, and the Secretary was instructed to have it translated and printed and a copy sent to each member. The election of officers, etc., was then proceeded with.

The Chairman appointed Mr. H. Staveley and Mr. J. Z. Resther to act as scrutineers.

The whole of the officers and Council were then elected by ballot, the scrutineers reporting the following officers duly elected to fill their respective offices for the ensuing year:

President, F. X. Berlinquet, Quebec; 1st Vice-President, V. Roy, Montreal; 2nd Vice-President, J. Nelson, Montreal; Treasurer, W. E. Doran, Montreal; Secretary, C. Clift, Montreal; Six members of Council: A. C. Hutchison, Montreal; A. F. Dunlop, Montreal; A. T. Taylor, Montreal; A. Raza, Montreal; M. Perrault, Montreal; J. F. Peachy, Quebec; Auditors, J. W. Hopkins, Montreal; Chas. Baillarge, Quebec.

Mr. Hopkins was asked by a large number of members to stand as President for another year, but he begged the members not to vote for him as he could not accept the honor for another year, and sincerely hoped they would elect the 1st Vice-President to the presidency, whereupon Mr. Berlinquet was elected by an unanimous vote.

A vote of thanks was tendered to the scrutineers.

It was moved by Mr. V. Roy, and seconded by Mr. Berlinquet, that Mr. Hopkins be tendered the most heartfelt thanks of the members of this Association for the able and efficient manner in which he had filled the position of President since the formation of our Association. Unanimously carried.

It was moved by Mr. J. Z. Resther, and seconded by Mr. Pagé, that the thanks of the members be tendered Mr. Clift for the services rendered this Association since its formation, also that it be accompanied with a cheque for \$150 as a present. Unanimously carried.

It was moved by Mr. Ouelette, and seconded by Mr. J. Z. Resther, that a vote of thanks be given the Council for their efficient services. Unanimously carried.

At this stage Mr. Hopkins conducted the newly elected President to the chair.

It was decided to advertise in a Quebec paper when matters affecting the Quebec members and students came up.

It was moved by Mr. Doran, and seconded by Mr. Raza, that the next annual meeting be held in Montreal on date according to the by-laws. Carried.

It was decided that the Council prepare a form of agreement and conditions of contract for the use of all members.

There being no further business, the meeting closed.

THE BANQUET.

In the evening the members of the Association assembled at a banquet in the Florence Hotel, at which, as will be observed from the annexed report of the proceedings, a most enjoyable and profitable time was spent.

The following gentlemen sent letters expressing regret at their inability to attend the banquet: Messrs. Arnoldi, Ottawa, W. A. Langton, Toronto, Edmund Burke, Toronto, E. E. Tache, Assistant Commissioner of Crown Lands, Quebec, and Messrs. Charest, Trudel and St. Michel, Quebec.

The toast of the Queen was proposed by the President, Mr. Berlinquet, and received with enthusiasm, all present joining in singing "God Save the Queen."

In proposing the second toast, that of the Province of Quebec Association of Architects, Mr. Berlinquet said:

GENTLEMEN,—I have now to propose the toast of the Association of Architects of the Province of Quebec. This toast will, I have no doubt, be drunk with pleasure by all present. This Association has in view an object of which we are all well aware, and one which should commend itself to everybody. It has for object the strengthening of the profession, and the rendering of its members more capable in the performance of their duties. Union is strength. Each member of this Association of Architects may be compared to a stone forming part of a structure; and as in a structure each stone has its allotted place and object, and all the stones being put together with harmony form something grand and imposing, so each member of this Association

1871

1871

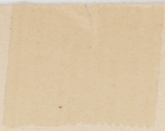


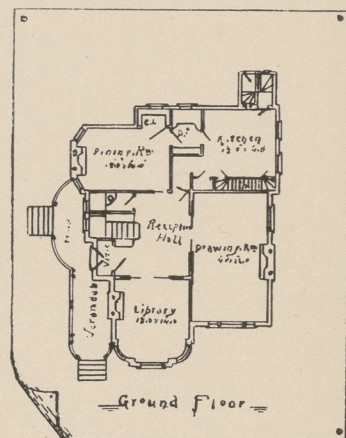
Sketch of building in front of

1871



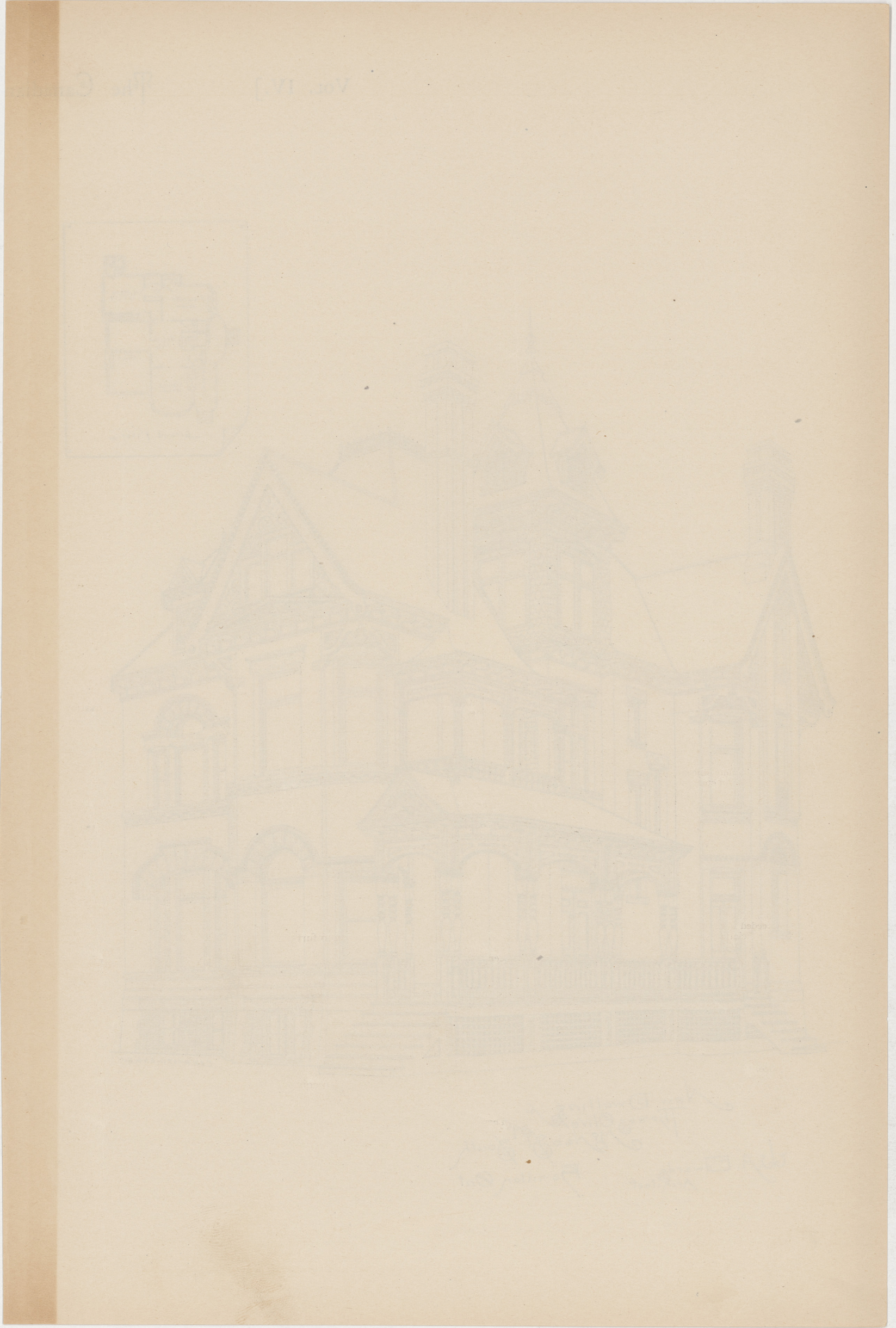
Houses on Crawford by Denison H. King. Architect Toronto. Ont.
1890





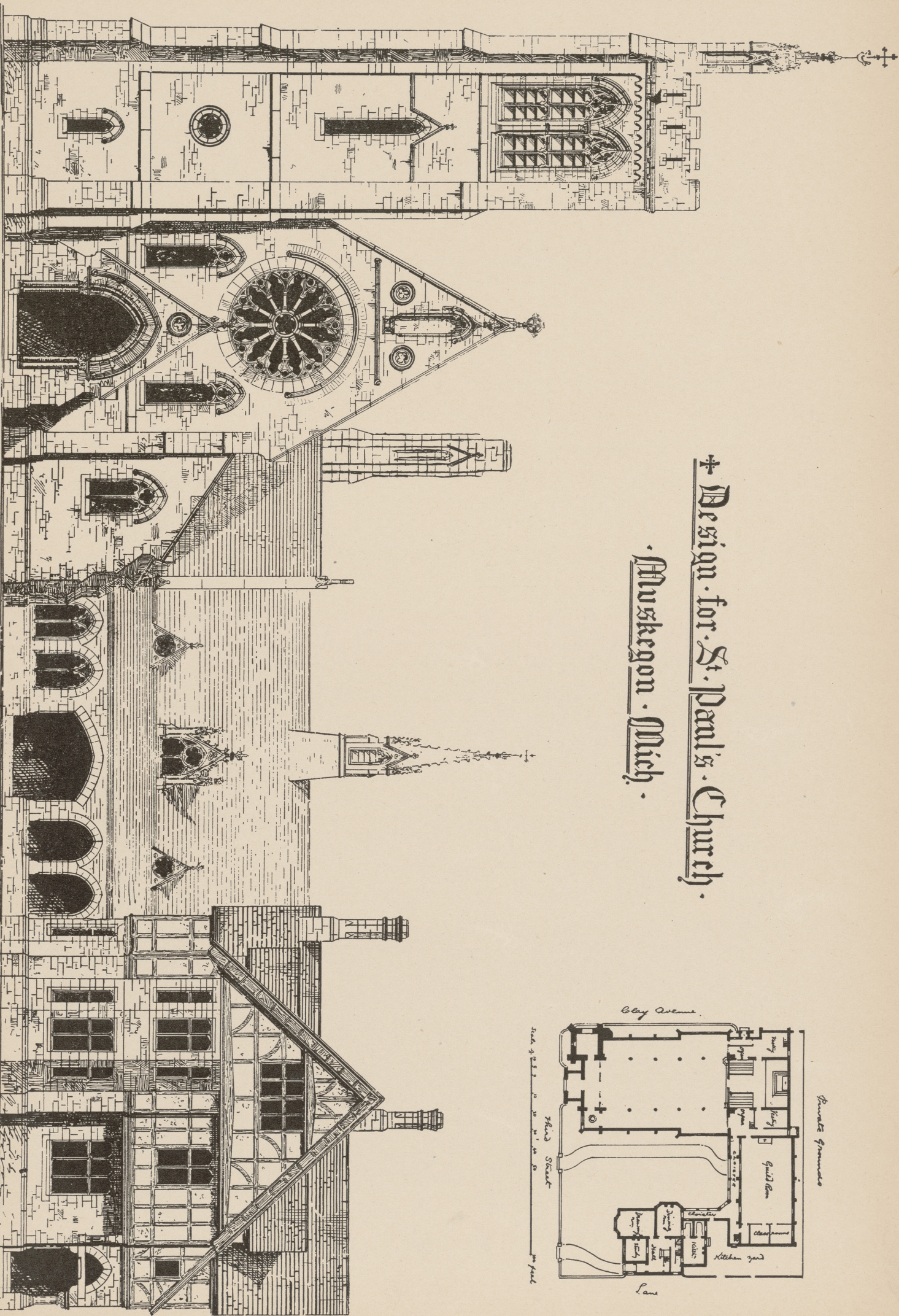
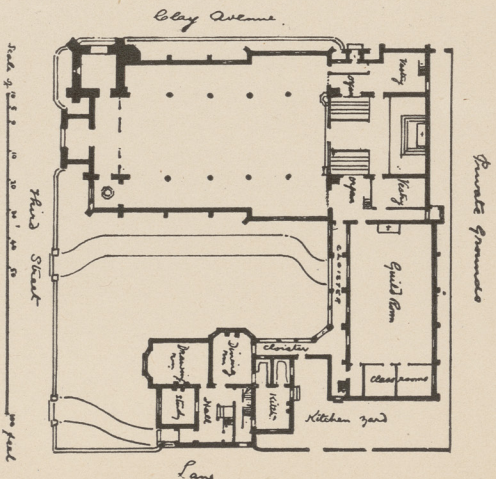
CAN. PHOTO-ENG. BU

New Dwelling for
 Thomas Oliver Esq.
 100 N. 1st St. South
 W.A. Edwards
 Architect Hamilton Ont



Design for St. Paul's Church.

Muskegon, Mich.



Elevation on - Third - Street.

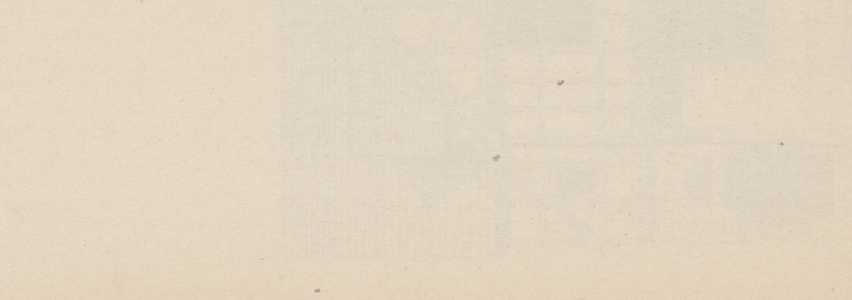
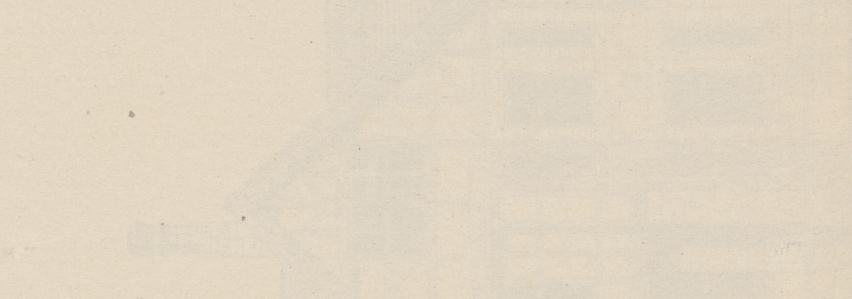
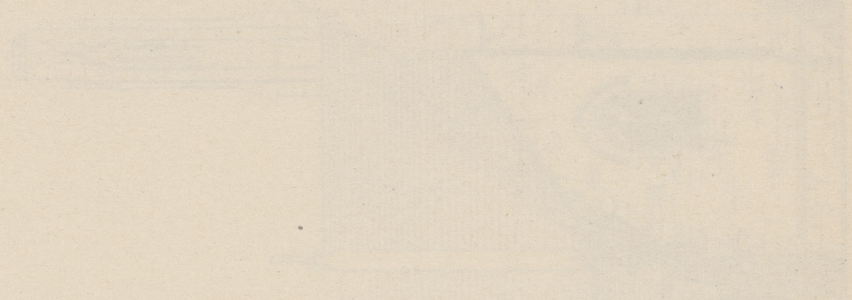
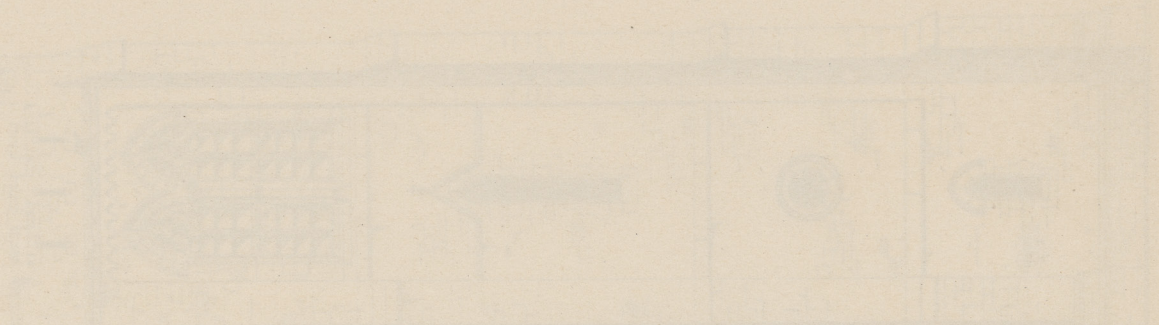
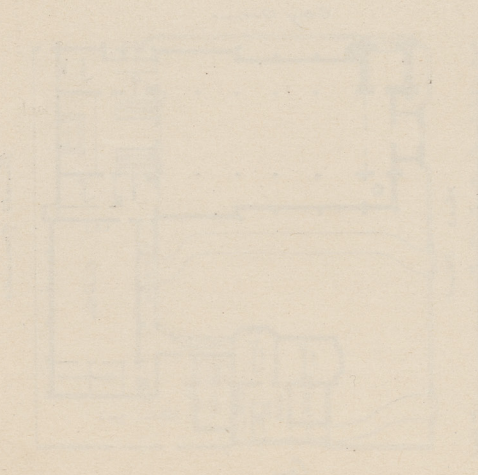


Illustration - (111)

Queen in St. Paul's Church

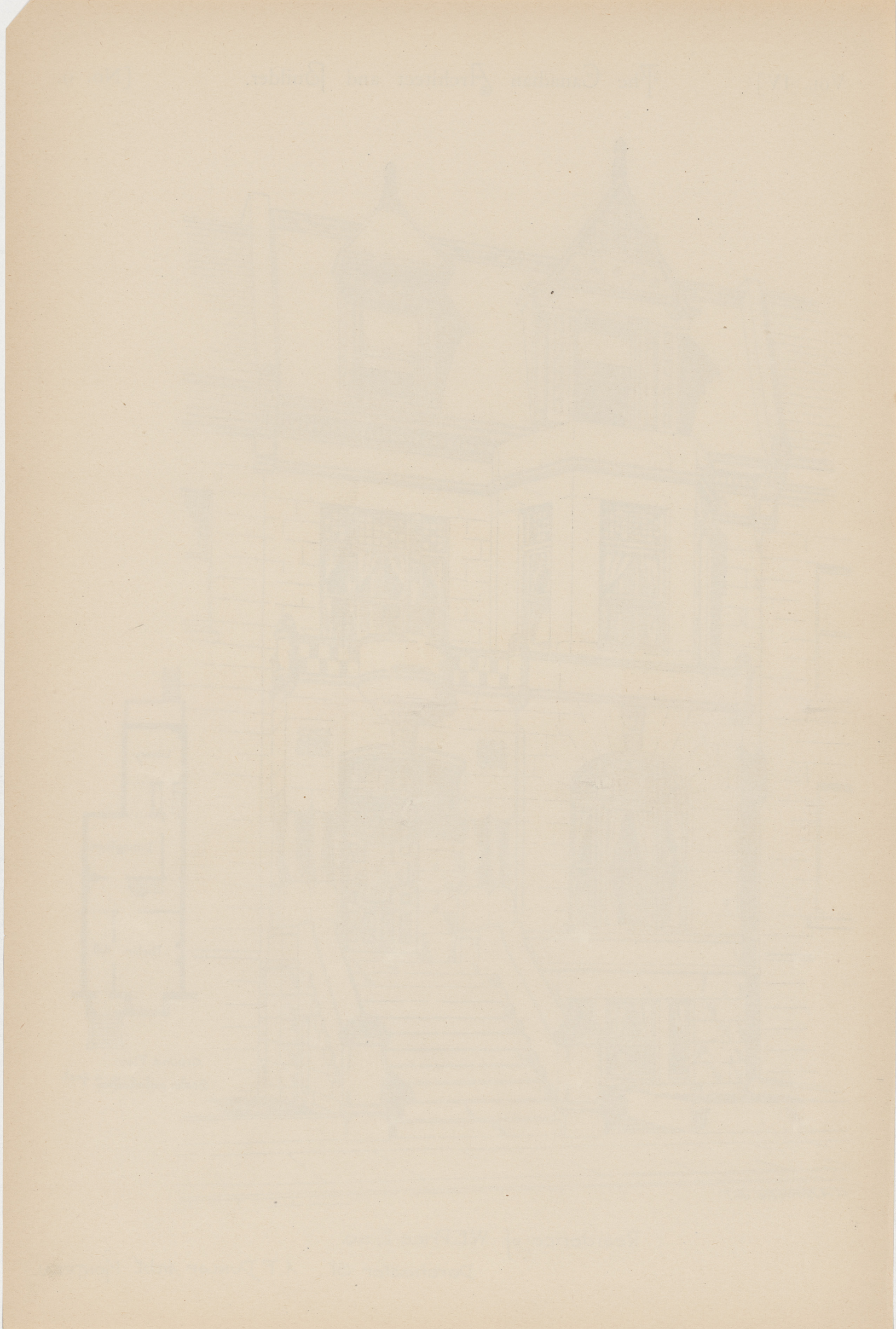
10/10/92





Residence of W.E. Price Esq.

Dorchester St. A.F. DUNLOP Archt. MONTREAL



"CANADIAN ARCHITECT AND BUILDER" STUDENTS' COMPETITION.



Fragment of Carved Cap
York Cathedral

WITH the object of promoting a feeling of friendly emulation on the part of students in the offices of members of the Province of Quebec and Ontario Associations of Architects which should result in improving the skill of the young men thus engaged, the publisher of the CANADIAN ARCHITECT AND BUILDER invites competitive designs for a suburban cottage to be occupied by a young man doing business daily in the city, owning the lot, possessing \$2,000 in cash and having an income of \$1,400 per annum.

The cottage is to be erected on an inside town lot having a frontage of 75 feet, a depth of 150 feet, and situated on the west side of the street.

There is required in the way of accommodation a parlor, small library, dining room and kitchen; cellar, suitable for heating apparatus and storage of fruit and vegetables.

On the first floor there are to be four bedrooms and bathroom. The attic is to contain a servant's bedroom and store room.

The materials to be used shall be brick on a stone foundation.

There is no sewerage or water supply systems in the town, and the owner will have to dispose of all waste in the most sanitary manner, avoiding contamination of the soil from which he has to draw his supply of water.

Competitors are required to submit plans of the various floors, two elevations, unless accompanied by a perspective, when one will do.

Drawings must be made on sheets of heavy white paper or bristol board, 14 x 20 inches in size, and must be drawn sufficiently coarse to allow of their being reduced to one-half the above size. Drawings must be made in *firm, strong lines*, with *pen and black ink*. No color or brush work will be allowed. Each drawing must be marked with the *nom de plume* of its author, and the author's name, *nom de plume* and full address must accompany each drawing sent in. Competitors must also give the names of the architects in whose offices they are employed.

Drawings must reach the office of the CANADIAN ARCHITECT AND BUILDER, 14 King St. west, Toronto, not later than the 5th day of November next.

The right is reserved of publishing any design sent in. All drawings will be returned to the authors within a reasonable time after the competition is decided.

The first premium will be \$15; second, \$5; third, one year's subscription to the CANADIAN ARCHITECT AND BUILDER. A premium of \$5 will be given for the best perspective sent in. The decision as to the respective merits of the designs submitted will be made by Mr. Thos. Fuller, chief architect, Department of Public Works, Ottawa, which decision will be final.

This competition is confined to students practising in the offices of members of the Province of Quebec and Ontario Associations of Architects.

GLAZING COLORS.

GLAZING is a term which has probably been borrowed from the potter's art of coating the ware with a transparent vitreous substance.

The house-painter uses the word glaze in speaking of the setting of window-panes, and the word is used also by other trades when speaking of a finish that adds luster.

Glassy, transparent, is the correct meaning, therefore glazing colors are those possessing but little body, or covering power, and which are employed when richness and brilliancy are desired.

Body colors may be rendered transparent or partially so by using but little color to a large proportion of vehicle; but such glazing is of no value except to landscape painters, and not much to them.

There is no difficulty in producing a perfect glazing coat, when the painter knows how to prepare the foundation colors.

The self-taught painter, supposing that all colors are used the same, may worry over his carmine or yellow lake and wonder why they will not cover, and he may give up in despair; but the regular vehicle painter, knowing what is demanded, proceeds with a glaze with as little concern as he would for a body color.

Any body color which is to be used as the color proper should be fine, clean, and laid on perfectly smooth. This being the practice in good shops, glazing is merely the extra work of laying two or more coats of transparent color.

The glaze may be put on thin and but one coat given, which is practiced when it is desired to impart brilliancy to the under

coat. Brilliant vermillion is produced by a thin glaze of carmine over vermillion, and the same method may be adopted with the yellow and green lakes.

The common practice is to prepare the ground color so that it will closely match the tone of glazing color as it appears when mixed or "wet up," for every color is slightly deeper in tone when wet or mixed in oil or varnish; but the glazing colors are capable of a wider application, for they may be painted over grounds wholly opposite in color. Thus carmine may be glazed over lead color, black, and also over white, yellow, pale green, verdigris, blue, purple, violet and yellow lake; verdigris and ultramarine blue may be glazed over about the same range of colors, but when so used they are better adapted to narrow spaces, striping ornamental and pictorial work.

THE TORONTO ARCHITECTURAL SKETCH CLUB.

MR. Frank Darling has offered a prize of books to the value of \$10, for the best set of measured working drawings of the front porch of the Canada Co. Building, corner of King and Frederick streets.

The following drawings are to be submitted: Elevation, section and plan, inch scale; sections of mouldings, full size; elevation, section and plan of caps, showing front and diagonal views of volutes, full size. All drawings to be made in black ink on white paper, no brush work being allowed. Neatness and general arrangement of the drawings will be taken into consideration.

Drawings to be submitted under *nom de plume*, the author of the work enclosing his real name in a sealed envelope. Members of the Sketch Club only are permitted to compete.

The drawings to be delivered to Mr. Frank Darling, Mail Building, not later than Monday, Nov. 2nd.

STAINING OAK BROWN.

A correspondent asks for a receipt for staining oak so as to match old brown oak. Wood is stained by the application of the ordinary liquid dyes employed for wool or cotton. They sink deeper into the wood when they are applied hot. A decoction of oak bark produces brown of various shades, according to the quantity employed; so does an infusion or decoction of walnut peels. The above information is from Cooley's Practical Cyclopædia of Practical Receipts. We have been told that Condyl's Fluid, more or less diluted with water, will stain wood brown. If a very dark brown is required, it may be necessary to introduce a little black. In the supplement to the *Scientific American*, the following instructions are given for dyeing oak black, so as to resemble ebony; and, of course, lighter shades of black can be produced at will by employing more water than is prescribed: Immerse the wood for 48 hours in a hot saturated solution of alum, and then brush it over with a logwood decoction as follows:—Boil one part of the best logwood with ten parts of water, filter through linen, and evaporate at a gentle heat until the volume is reduced one-half. To every quart of this add from 10 to 15 drops of a saturated solution of indigo. After applying this dye to the wood, rub the latter with a saturated and filtered solution of verdigris in hot concentrated acetic acid, and repeat the operation until a black of the desired intensity is obtained.

PERSONAL.

Mr. D. W. Ouellet, architect, will leave Quebec on the 20th inst., for a visit of three months to the principal cities of Europe.

The senior partner of the firm of Langley & Burke, architects, Toronto, has just returned from a visit to the Canadian northwest.

Mr. J. B. Reid, architect, Kingston, Ont., has been visiting Europe. Mr. Arthur Ellis has been in charge of his practice during his absence.

Mr. F. X. Berlinquet, architect, Quebec, has just returned from an extended tour in Europe, and in consequence is looking and feeling greatly improved in health.

Mr. W. E. Doran, of Montreal, after attending the Convention of the Province of Quebec Association of Architects at Quebec, returned home via Boston and St. John, N. B.

Mr. C. H. Bishop, Superintendent of Public School Buildings, Toronto, accompanied by Mrs. Bishop, sails from New York to-day (the 19th inst.), for Europe, where he will spend some five or six weeks in visiting points of interest in England, Scotland and France. He will doubtless bring back with him much information which may be utilized to advantage in the construction of school buildings in the future.

PROCESS OF MAKING SLAG BRICKS AT KOENIGSHUETTE, IN SILESIA.

THE slag is run into a large ladle containing fine coke dust, about one and one-half inches thick. The ladle is then run upon wheels to where the bricks are to be made. The slag and coke dust are then mixed together with a curved iron or rabble. The gas generated by the coke is worked up with the liquid slag, the product being a doughy sponge-like substance, full of holes, exceedingly light and possessing sufficient elasticity in the walls of the cells to meet the contraction and thus prevent fracture. This material when pressed into a brick does not require annealing. The bricks possess great strength with very little weight, and are capital non-conductors of heat and sound.

has his special duties to perform in connection therewith, and all united together cannot but make a strong and enduring Association which must be productive of good results in the future. The art of architecture is based on Nature, and the grandest and most perfect specimens of her handiwork are man and woman; and when men are united together for any good object, the strength begotten of their union enables them to build up works of beauty and endurance. I do not hesitate to say that such a result awaits our combined efforts. I now propose the toast of the "Province of Quebec Association of Architects."

Mr. Hopkins, of Montreal, in response to this toast, said:

Mr. President and Gentlemen,—I feel very diffident in rising to return thanks to the Association. Of course, having been the first president, I ought to know something of the progress of this society, and I presume I do. When we last met to-day I said a few words. As you know, I am not a man of many words, but I expressed to you how happy I was to be connected with the Association, and how gratified I was to find that during the first year so much progress had been made. I have not the slightest doubt that the new president and officers, most of whom have been re-elected, and therefore, metaphorically speaking, "know the ropes"—I have not the slightest doubt that they will be able, with the aid of a good rudder, which I am confident they will secure in some way or other, to steer the ship of our Association in its proper course for another year. Possibly, it having been our first year, the machinery may at one time have run a little loose and at another, a little stiff; but with the experience already gained, and with the hearty co-operation which, I feel assured, the members outside of the Council will give to it, another year will find us in a more prosperous condition than we are at present. I must avail myself of this opportunity to thank you in the most sincere manner for the honor which you intended to bestow upon me to-day; and I only regret that it was not in my power to accept it. I am sure my successor will prove an improvement—the second edition being always better than the first, and the latest edition containing the most news—he is younger in years and has had experience both in this city and in Montreal, both of which cities will participate in the advantages to be derived from the meetings of the Association alternately (applause).

Mr. A. F. Dunlop, in reply, said:

Mr. President and Gentlemen:—It gives me great pleasure to be among so many of my honoured confreres this evening—the second annual meeting of our Association. Two years ago I had not thought it possible to form this Association. Public opinion was against us; in fact, most of the present members felt how hopeless such an undertaking would be. But this meeting proves that nothing is too great to accomplish, as we have not only formed the Association, but its future prosperity is also assured. There is, however, one vital and all important point, on which I wish to say a few words. The general public are not thoroughly well informed as to the object of our Association. They have an idea that we are formed into a close profession for the purpose of preventing anyone else from being an architect, and that we intend to raise the standard of our charges. Gentlemen, this is a base slander on our good intentions. We are formed into this Association for the advancement of architecture, for the better serving of our clients, and for the better education of our students; also for the establishment of schools and classes of architecture, and for the purpose of making every architect of the future a competent one, and one whom the public may employ with confidence. Would you employ a doctor who had simply been a druggist for a few months to attend your sick child or parent? Would you employ a notary or a lawyer who had only been in a bailiff's office for a limited period to draft your deeds? Then why employ a man who calls himself an architect—a man without training, and one who would put in 12" timber where it requires 24", and *vice versa*. Is it not a fact that the proper construction of a building is as important to life and safety as the employment of a proper doctor? You jeopardize a life with a poor doctor, and you jeopardize a hundred lives with a poor architect. It is the architect on whom the public must rely for the proper construction of their buildings. Should not the architect be thoroughly practical, and know how to use material with economy? Should he not know the exact requirements of the art of architecture in all its branches to enable him to satisfy the wants of the public? and as for sanitary requirements, the architect has far more to do with the health and long life of the world's great family than the physician, and is in a great degree answerable for the ailments and early deaths of many. How can all this knowledge be acquired unless we join together and establish schools, classes of architecture, libraries in our colleges for our students? Why should not every architect of the present and future be on the same footing, as regards qualification, as a doctor, lawyer, notary, or druggist; and why should not the public be guaranteed that he is so? I claim that an architect has as great a mission to perform, and without training and education our public and private buildings must be at best fire traps, badly constructed, badly ventilated, badly designed, and a disgrace to our country, while on the other hand, our educated and trained students would make architects of whom the world would be proud, and it would be an honour to belong to such a profession. An architect would then be looked up to with respect and con-

fidence, and not as now, in many cases be regarded with suspicion and doubt. Our ranks would be filled with qualified men who would say with Shakespeare:—

"When we mean to build,
We first survey the plot, then draw the model;
And, when we see the figure of the house,
Then must we rate the course of erection
Which, if we find outweighs ability,
What do we then but draw anew the model
In fewer offices; or at least, desist
To build at all? Much more in this great work
(Which is almost to pluck a kingdom down,
And set up another), should we survey
The plot, of situation, and the model;
Consent upon a sure foundation,
Question surveyors, and know our own estate
How able such a work to undergo;
To weigh against his opposite; or else
We fortify on paper and in figures.
Using the names of men instead of men:
Like one that draws the model of a house
Beyond his power to build it; who, half through
Gives o'er, and leaves his part created cost
A naked subject to the weeping clouds
And waste for churlish winter's tyranny."

Mr. Hutchison being called upon, said:

I am of course glad to take part in the first annual meeting of our Association. During the past year we have tried to lay the foundations of our Association like good architects; and while the foundation that we have in the Act is not, perhaps, the very best we could have had, like good builders, we must make the best of it. A great part of the work of the past year has been, and probably the work for two or three years to come will be, merely laying the foundations of our Association. The older members of the profession, like myself, who have borne the brunt and heat of the day in times past, will, perhaps, get no further than laying the foundations. We all know, however, that the most important part of a building is the foundation; and while it is lost to sight, and there is nothing beautiful about it, still on the excellence of the workmanship depends the firmness of the building; and I hope that we will be able to lay a foundation so broad and deep that this will be a lasting Association. (Applause.) I hope, Mr. President, to see a superstructure raised upon the foundation which we are now laying; and I have great hopes in that superstructure being something good, from the fact of the steps we have taken to bring a proper class of persons into the profession. I am very much pleased with the late examinations for matriculation held in Montreal, I am pleased to see that so high a standard is required to enter the profession; and to the faithful performance of the duties of the board of examiners I attach great importance in the making of our Association a success. I trust that they will be very strict in the examinations for entry into the profession. It is, I think the only means of raising our profession to a high level; and I hope the Board of Examiners will ever bear that in mind. I am beginning to feel that I am getting old, and I will in a few years perhaps be out of active service. It is my earnest wish that the young men rising up will be an honor to the profession. I am looking forward with a great deal of hope to be able to see during this coming winter and succeeding winters something done towards that end by the formation of classes or the delivery of lectures to help our young men on in their studies. Of course, you are all aware that heretofore the study of architecture in any of our offices has been somewhat of a farce. I do not think there is an office in the Province of Quebec where there has been a systematic teaching of architecture. For my own part I have always refused to take young men, because I knew I had no time to devote to teaching them. Now, I hope that our Association, having secured a home of its own, will establish during this winter and succeeding winters, classes in which a proper course of training will be carried out. I think feelingly on this subject, Mr. President, from the fact that all my own studies had to be carried out under very great difficulties. I am sure I studied for months at some subjects, when perhaps a lecture or two would have made them clear to me and saved me very great trouble. By putting facilities in the way of our young men we ought to raise up a better class of men than the old ones; and in this direction I trust that our Association will attain great success. (Applause.)

The toast of the sister Association of the Province of Ontario was proposed in a very neat speech by the Vice-President, Mr. Roy, who, in the course of his remarks, said: I would like to propose the toast of the sister Association of the Province of Ontario. This toast will no doubt be drunk heartily for several reasons. The Association of the Architects of the Province of Ontario is the first Association organized in Canada. We are the second; but we have had their work before us as an example to follow. Seeing the success which they had with their Association, we in the Province of Quebec failed to see why the same success should not await our efforts in the same direction. I am happy to see that even they have recognized the great success which we have had in Parliament and elsewhere in the short time which has elapsed since we set about our self-appointed task. The realization of their hopes was longer deferred than ours, and it took them more time to reach the point which we have attained to-day than has been necessary with us. The Association of Ontario has done a great deal for the advancement of the art of architecture; and thus have they not only

benefitted the Association but also the public at large. The public in Ontario feel it. The public feel that when they take an architect belonging to the Association, they have an architect possessed of the ability requisite for the proper carrying out of the work which he undertakes. Gentlemen, I drink this toast with the greatest pleasure, and I know that you do likewise.

Mr. Doran was called upon to respond to this toast, and said:

Mr. President and Gentlemen,—I suppose I must for the moment imagine that I am a foreigner—at least foreign to this province. I must at the outset express my regret that there is no genuine native born Ontario man here to speak for them, but I suppose I must become naturalized and for the time being consider myself as an Ontario member. When I was first asked to respond to this toast the question arose why I should be selected, instead of any other member of the Association, to denationalize myself from the Province of Quebec and become, for the time being, the representative of the sister Association of the Province of Ontario, and that question I have not been able to solve. Well, to proceed, on the part of the Ontario Association I return the most sincere thanks for the manner in which this toast has been received; and as art really knows no nationality, much more it may be said that art in Canada, particularly that of architecture, should know no nationality, that it should be one broad Canadian work. We hope the time is not far distant when it will be the Association of Architects of the Dominion of Canada (Applause), and when the Provincial Associations will be small branches (the same as to-day we have the local branches of Montreal and Quebec of the Provincial Association) of that greater Association of the Dominion. In this manner the prosperity and growth of the Dominion may be advanced, because there is no surer way, no more eloquent way, of telling in the most silent manner possible of the greatness of a country than by pointing to its architectural monuments. When the songs of the poet will be forgotten, the monuments of stone raised by a people shall pass down to future ages and testify to the grandeur and greatness of their country, as do those majestic monuments of ancient Greece to-day. The magnitude of examples of architecture should testify to the greatness of our country, and the stamp of originality which we hope will be placed on our buildings, and which we hope our Association will tend to foster, may prove that Canada is a nation, that it is a country fair and free, a country of which we may all be proud. (Applause.) It is to be hoped, gentlemen, that the Association of the broad Dominion will soon take the place of the Provincial Associations, and carry onward and forward the good work which has been begun by the Provincial Associations. Mr. Hutchison spoke of us as building the foundations. Let us hope then that the foundations which we are building may be the foundations of a vast arch which will spring over all this country, and unite not in bands of iron but in bands of stone, if I may use the expression, the whole country. (Applause.) Gentlemen, I think I cannot do better before resuming my seat, than to propose the toast of "Canada, Our Country,"—the country of which we may justly feel proud; and I will call upon our friend Mr. Baillargé to respond to this toast in the fitting terms which he so well knows how to use.

Mr. Baillargé responded briefly to this toast, saying:—I must say that you have made a very poor selection in calling upon me to respond to this toast. Of course we are all proud of Canada, though it would appear just now that our American cousins are doubtful of the propriety of annexing us, for fear they should be led into bad ways. I am glad to see that in our by-laws we have taken good care to exclude all kinds of boodling, still it is so difficult to make a dollar, that perhaps you would like to know the way the miller advised his sons to manage when they could not make a dollar honestly, and with your permission I will give you "The Miller."

Mr. Baillargé then entertained the banqueters with the rendering of a humorous song entitled "The Miller."

The toast of the "Press" was proposed by Mr. Clift in a few well chosen words, and responded to by Mr. J. B. Mortimer, who was followed by Mr. Haynes.

The toast to the retiring President, Mr. Hopkins, proposed by Mr. Roy, was received enthusiastically, all joining in the chorus, "For he's a Jolly Good Fellow."

Mr. Hopkins, responding, said: Mr. President and Gentlemen:—I thought you would have got pretty near tired of hearing my speeches, which amount to noise and nothing else. My old friend Mr. Roy, I know, spoke feelingly in proposing my health, because we have been friends for many years; and I assure you that I feel very grateful and very much indebted to you all for the manner in which you have accepted this toast. I hope that at any time that my assistance can be of the slightest value you will not fail to call upon me. You have almost overpowered me with the enthusiasm of your demonstration; and I can only hope that those who succeed me will obtain—I know they will merit it—the same kind expression of feeling which you have shown towards me.

The toast of "The Retiring Council," proposed by Mr. Larochelle, was responded to by Mr. Piché, who said:

Mr. President,—Mr. Larochelle has proposed the health of the Council which guided the affairs of our Association during the past year. I must say that I have not participated in the carrying out of their work as much as I should like to have done. I cannot but say that the work which has been done,

particularly in Montreal, merits high praise; and if the Association stands on a sure and solid footing to-day, it is owing in large part to the gentlemen belonging to Montreal. We have started out well, and let us continue to go forward with a firm step, confident that we are doing good conscientious work, which will have its effect not only among ourselves but also among the public, who well know how to appreciate it. (Applause.)

Mr. Ouellet followed with a few brief remarks expressive of his gratification at the thorough appreciation by the members in general of the efforts put forth by the Council of last year for the advancement of the interests of the Association.

Mr. Clift called for a toast to the newly elected President, Mr. Berlinquet, saying that he felt confident that Mr. Berlinquet would be an honor and an ornament to the Association, and would do full justice to the position which he was called upon to fill.

Mr. Berlinquet, replying, said that it was but right and fitting to compliment those who had acquitted themselves of their duties in a praiseworthy manner; but it was rather premature to bestow praise upon one whose work was not really commenced. He assured the Association that he would do his utmost, and was prepared to make any sacrifice, to fulfill the duties which should devolve upon him in the onerous position to which they had raised him.

The health of "The Ladies" was then drank with gusto, and Mr. Gauthier answered for them in a most happy manner.

In the course of the evening the banquetters were entertained by the rendering of several fine songs by Messrs. Gendron, Roy and Pageau.

The newly elected Council held its first meeting at the Florence Hotel on the 12th inst., and after having disposed of some routine business, accepted the invitation of the President, Mr. Berlinquet, and Mr. Peachy, to enjoy a drive about the city.

EXAMINATION PAPERS, ONTARIO AND QUEBEC ASSOCIATIONS OF ARCHITECTS.

ONTARIO ASSOCIATION PRELIMINARY EXAMINATION.

CANDIDATES, except such as have matriculated in arts in any university in Her Majesty's dominions, or in the Ontario School of Practical Science, must have passed the examination of the second form of a High School or Collegiate Institute; or, as an alternative, must have passed the entrance examination to a High School or Collegiate Institute, and submit to an examination in Mathematics, and either French or German equivalent to that of the second form of a High School or Collegiate Institute.

The first time of sending in his name as a candidate for examination, the student shall send also a certificate of his status with reference to the Preliminary Examination.

ONTARIO ASSOCIATION FIRST INTERMEDIATE EXAMINATION.

Every candidate must, at least one month prior to the date fixed for the examination, send to the Registrar the following drawings, which must be certified by his principal to be his own work:

Four sheets of drawings, one of each of the four orders of Greek architecture; One sheet of the mouldings and ornaments of the orders, drawn to a larger scale; (Each sheet to be of the size of a half sheet of Whatman's Double Elephant paper, *i. e.*, 20 in. by 26 in.)

The subjects for examination will be:—

ELEMENTS OF CONSTRUCTION.—Text Book: Mitchell's Building Construction, Part I.

MATHEMATICS.—Euclid: Books I., II. and III.; Plane Trigonometry: Including the solution of plane triangles; Algebra: Including quadratic equations.

TECHNICAL TERMS.—A knowledge of the terms necessary to understand the descriptions of a monumental building and its parts.

HISTORY OF ARCHITECTURE.—An outline only will be required, such as may be learned from reading such works as Rosengarten's Architectural Styles.

ONTARIO ASSOCIATION SECOND INTERMEDIATE EXAMINATION.

Every candidate must at least one month prior to the date fixed for the examination, send to the Registrar the following drawings, which must be certified by his principal to be his own work:—

One sheet of Romanesque architecture; Two sheets of Gothic architecture; One sheet of drawings measured from existing examples; One sheet of constructional details. (Each sheet to be of the size of a half sheet of Whatman's Double Elephant paper, *i. e.*, 20 in. by 26 in.)

The subjects for examination will be:—

STATICS, GRAPHICAL AND ANALYTICAL.

STRENGTH OF MATERIALS.—Text book for both the above heads: Lessons in Applied Mechanics, by Cotterill & Slade; Part II.

STRUCTURAL IRON WORK.—The candidate will be required to draw details of the forms of iron construction in use in ordinary practice, viz., the construction of columns and girders, and the framing of beams and trusses.

HISTORY OF ARCHITECTURE.—The candidate will be expected to have a knowledge of the development of architecture and the characteristics of the different styles; Text book: Fergusson's History of Architecture; Handbooks recommended: Parker's Introduction to Gothic Architecture; Bloxam's Gothic Architecture; Rickman's Gothic Architecture.

ONTARIO ASSOCIATION FINAL EXAMINATION.

Every candidate must, at least one month prior to the date fixed for the examination, send to the Registrar a perspective drawing which must be

certified to be his own work. Drawing to be on a sheet of paper, 20 in. by 27 in., and not mounted on cardboard.

The subjects for the final examination will be :—

HISTORY OF ARCHITECTURE.—The leading characteristics, including mouldings, features and ornaments of all styles; and special characteristics, with mouldings, features and ornaments in detail, of any one style or period the candidate may select.

DESIGN.—As illustrated by drawings for a building of moderate dimensions, from particulars given, with details of construction and ornament and with specifications.

NATURE AND PROPERTIES OF MATERIALS.—Limes, cements, stones, bricks, timber.

FOUNDATIONS.—Text book : Foundations, by Geo. T. Powell.

ARCHITECTURAL JURISPRUDENCE.—Text book : The Law Relating to Civil Engineers, Architects and Contractors, by Macassey & Strahan.

PRACTICAL KNOWLEDGE OF BUILDING TRADES.—Sufficient for the purposes of ordinary building

STRENGTH OF MATERIALS.—Designing structures of an ordinary kind from data, with computation of the strains involved.

HEATING AND VENTILATION.—Text book : Ventilation and Heating, by John S. Billings.

SANITARY SCIENCE.—Text books : Gerhard's House Drainage ; Bayles' House Drainage and Water Supply.

QUEBEC ASSOCIATION PROGRAMME OF MATRICULATION EXAMINATION FOR PUPILS.

1. English or French Composition. (A subject to be chosen at the time.)
2. Arithmetic, up to and including fractions.
3. Mensuration of Surfaces and Solids.
4. Algebra.—Simple Equations.
5. Elements of Geometry and 1st and 2nd Books of Euclid.
6. Freehand Drawing (copy to be given.)
7. Linear Drawing—geometrical (Do.)

QUEBEC ASSOCIATION PROGRAMME OF EXAMINATION FOR REGISTRATION AS ARCHITECT.

LISTS OF SUBJECTS, &c.—Preliminary drawings to be sent in previously, and prepared during pupilage, or otherwise, and to be entirely the work of the candidates.

(a) Measured drawings of an existing building, for example the chapter house of Christ Church Cathedral, Montreal, or the newly erected side chapel of the Basilica at Quebec at 1/2" scale with mouldings and ornament 1/4 full size.

(b) An original design of a detached private residence, with complete plans, sections, elevations and details, colored to show materials, and one perspective view drawn by rule, together with complete specifications for the several works and materials required for the carrying out of said design, and a detailed estimate of cost, which must not be less than \$15,000 ; scale to be not less than 1/8th inch to 1 ft.

(c) An essay on the history and characteristics of any one style of architecture to be selected by the candidate, giving fullest particulars, illustrated by sketches, and to contain at least 1,000 words.

WRITTEN, GRAPHIC AND ORAL EXAMINATION.

ART SECTION.—(a) The orders of Greek and Roman Architecture, their origin, development and application ; with sketches.

(b) The several varieties of classic ornament.

(c) The development of the different periods of French or English Gothic, commencing with the Norman.

(d) The characteristic mouldings and ornament of each period.

SCIENCE SECTION.—(a) The nature, qualities and defects of ordinary building materials, such as stone, brick, timber metals, etc.

(b) The nature of soils and foundations.

(c) The calculation of strengths of materials and resistances from data and formulæ given.

(d) The elementary principles of construction.

(e) Hygiene, drainage, and sanitation of buildings.

(f) Architectural jurisprudence.

(g) Heating, ventilation and acoustics.

BOOKS RECOMMENDED.

ART SECTION.—Fergusson's History of Architecture ; Fergusson's Handbook of Architecture ; Viollet-le-Duc Dictionnaire d'Architecture, Stuart & Revett's Antiquities of Athens ; Sir William Chambers' Civil Architecture ; Gwilt's Encyclopædia of Architecture, (1888 edition) ; Gailhabaud's l'Architecture du V. au XVII. Siècle ; Parker's Introduction to Gothic Architecture ; Rickman's Gothic Architecture ; Brandon's Analysis of Gothic Architecture.

SCIENCE SECTION.—Notes on Building Construction—South Kensington series ; Dobson's Rudiments of the Art of Building ; Dobson's Foundation and Concrete Works ; Tredgold's Elementary Principles of Carpentry ; Baillairge's Stereometicon ; Rankin's Manual of Applied Mechanics and Civil Engineering ; Park's Manual of Hygiene, and Works by Latham, Putnum, Bailey-Denton, Hellyer, &c. ; Civil Code of the Province of Quebec ; Gwilt's Encyclopædia of Architecture (1888 edition), etc., etc.

The announcement is made in the advertisement of the Toronto Pressed Brick Co. that the Company's office and show rooms have been removed from Adelaide street east to No. 139 Yonge street. It is gratifying to be told that the necessity for enlarged space consequent upon the growth of the business has rendered this removal to larger premises necessary.



COLORING AND ENAMELING FACING BRICKS.

WHEN coloring white burning clay, for 100 parts of material are required, according to the behavior of the basis material :—

COLOR DESIRED.	OXIDE USED.	PER CENT. OF OXIDE USED.
For dark green	Chromic oxide	0.010 to 1.50 per cent.
" pale green	Chromic oxide	0.005 "
" bluish green	Chromic and cobaltic oxide	0.005 " 0.25 "
" deeper blue green	Chromic and cobaltic oxide	0.25 " 0.50 "
" olive green	Cobaltic and nickel oxide	1.200 "
" pale blue	Cobaltic oxide	0.005 "
" dark blue	Cobaltic oxide	0.05 " 0.50 "
" medium to deep yellow	Nickel oxide	0.200 " 0.900 "
" brown	Antim'y oxide or uranic oxide	0.500 " 0.750 "
" brown	Ferric oxide	0.150 " "
" black brown	Chromic ferric and cobaltic oxides, or manganese with or without uranium.	up to 6.17 "

For glaze coloring, 1.5 to 20 per cent. more of coloring matter will be required in proportion to the depth of the respective tone and the developing capacity the of coloring power of the respective oxides, as well as the height of the burning temperature. The many-sidedness of the subject is shown by the following compilation, there being considerable variation in the coloration, especially according to the more oxidizing or more reducing nature of the flame.

Should yield according to the quantity used.	May also turn out.
Ferric oxide	Yellow, brownish, medium brown-red, brown, orange-red, blood-red, violet brown-red.
Cobaltic oxide	Bluish, water-blue, sky-blue, fiery blue, black-blue.
Chromic oxide	Pure yellow, medium deep, intensely yellow, orange-brown with yellow reflection, greenish, pale green, sap green.
Cupric oxide	Greenish blue, perceptibly green blue, azure blue.
Antimony oxide	Yellowish, yellow, brown-yellow.
Uranic oxide	Sulphur-yellow, brownish, straw-color, greenish to green.
Manganic oxide	Medium brown, dark brown to blackish.
Nickel	Earth color, medium brown, red-brown, sap brown greenish brown.

The Brickmaker.

TO PRESERVE WOODWORK.—Enquiries are being made in Indian Engineering as to whether coal tar or Burmese "earth oil" forms the best preservative for woodwork. Having tried both, observes *Invention*, we may state that when wood is exposed to air only, the earth oil is the cheapest and less offensive. For wood wholly or partially buried in the ground, or inserted in brickwork, the coal tar is much superior.